

**Notice of Allowability**

Application No.

10/092,669

Examiner

THUAN T. NGUYEN

Applicant(s)

DUNWORTH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-8, 17-22, 42-44 and 54-59.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_

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**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows: (for withdrawn claims)

Please cancel claims 9-16, and claims 23-33.

A handwritten signature in black ink, appearing to read 'Tony T. Nguyen', with a stylized flourish at the end.

Tony T. Nguyen  
Primary Examiner  
Art Unit 2618

TTN  
May 10, 2007

## DETAILED ACTION

### *Remarks*

1. Claims 34-41, 45, 46-53 have been canceled in the supplemental amendment dated 02/26/2007. Pending claims are claims 1-8, 17-22, 42-44, and 54-59 (55-59 new) for reconsideration.

### *Allowable Subject Matter*

2. Claims 1-8, 17-22, 42-44, and 54-59 have been allowed.

### *Reasons for Allowance*

3. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest an apparatus comprising: means for dividing the frequency of an oscillator signal to generate a first signal; means for dividing the frequency of a reference signal to generate a second signal; means for synchronizing the phase of the first signal with the phase of the second signal during calibration; means for adjusting the frequency of the oscillator based on a comparison of the first and second signals, the circuitry increasing the oscillator frequency when the first signal edge arrives before the second signal edge, and the circuitry decreasing the oscillator frequency when the first signal edge arrives after the second signal edge; and in an alternative approach, an apparatus comprising: circuitry that divides the frequency of an oscillator signal to generate a first signal; circuitry that divides the frequency of a reference signal to generate a second signal, the reference signal being an externally generated temperature-compensated crystal oscillator signal; circuitry that synchronizes the phase of the first signal with the phase of the second signal during calibration; and circuitry that adjusts the frequency of the oscillator based on a comparison of the first and

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second signals, the circuitry increasing the oscillator frequency when the first signal edge arrives before the second signal edge, and the circuitry decreasing the oscillator frequency when the first signal edge arrives after the second signal edge as called for in claims 1, 17, 55, and 54-59.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Forrester, Shohara, and Beukema (PTO-892 attached) disclose systems related to different calibration techniques.

5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to the New Central Fax number:**

(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony T. Nguyen  
Primary Examiner  
Art Unit 2618

TTN  
May 10, 2007